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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/633,831	08/04/2003	Huy M. Nguyen	RB1-045US	5262
29150	7590	07/26/2004	EXAMINER	
LEE & HAYES, PLLC 421 W. RIVERSIDE AVE, STE 500 SPOKANE, WA 99201			NGUYEN, MINH T	
			ART UNIT	PAPER NUMBER
			2816	

DATE MAILED: 07/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/633,831	NGUYEN ET AL.	
	Examiner	Art Unit	
	Minh Nguyen	2816	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-21 and 36 is/are allowed.
- 6) ☒ Claim(s) 1-12, 22 and 27-34 is/are rejected.
- 7) ☒ Claim(s) 23-26 and 35 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/23/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: the Summary of Invention section and its header are missing. Appropriate correction is required.

Claim Objections

2. Claims 7 and 17 are objected to because of the following informalities:

In claim 7, line 3, "the phase offsets" should be changed to -- phase offsets --, to avoid potential antecedent basis problem, the phase offset(singular) recited on line 2 is different from this recited "phase offsets".

In claim 17, line 5, "the phase offsets" should be changed to -- phase offsets --, to avoid potential antecedent basis problem.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim 1, the recitation “in response to the received clock signal” on line 7 is misdescriptive, i.e., the specification does not describe the phase feedback element works with a single received signal. It must receive two signals in order to response.

As per claim 9, the term “the received component clock signals [plural]” lacks clear antecedent basis, i.e., it is unclear if it is referring to the “received clock signal[singular]” recited in claim 1.

As per claims 2-12, these claims are rejected because of the indefiniteness of claim 1.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-7, 9, 22, 27-30 and 33-34 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent No. 6,538,957, issued to Magoshi.

As per claim 1, Magoshi discloses a circuit (Fig. 2), comprising:

multiple components (nodes 106 and components connected to, not shown);

a plurality of clock drivers (L1-L4, column 5, lines 46-47) configured to provide separate clock signals to each of the components by way of separate paths (met since the clock distribution structure shown in Fig. 2 is an H-tree, column 5, line 38-42); and

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a phase feedback element (phase detector 112AB) corresponding to a pair of components (106A and 106B), wherein the phase feedback element is configured to receive and adjust the phase of one of the clock signals, in response to the received clock signal, to more closely match the phase of the other of the clock signals (for example: the phase of the clock at node 106A is compared with the phase of the clock at node 106B by phase feedback element 112AB and either the clock buffers L4A or L4B is adjusted, column 5, lines 56-67).

As per claim 2, the recited received clock signal path reads on the path which carries the received clock signal from node 106A to the phase detector 112AB which is near to the node 106A.

As per claim 3, the recited adjacent ends read on nodes 106A and 106B.

As per claim 4, the recited limitation is inherently met because this is why the phase feedback element is needed.

As per claim 5, the recited limitation is described in column 1, line 65.

As per claim 6, see discussion in claim 1.

As per claim 7, the recited limitation on line 2 is merely the function of any phase comparator, the recited limitation on lines 3-4 is disclosed in column 6, lines 3-7.

As per claim 9, the recited limitation is discussed in claim 1.

As per claim 22, this claim is rejected for the same reason noted in claim 1.

As per claims 27-30, these claims are rejected for the same reasons noted in claims 3, 2, 4-5, respectively.

As per claim 33, this claim is merely a method to operate the circuit having structure recited in claim 1, since Magoshi teaches the structure, the method to operate such a circuit is inherently disclosed.

As per claim 34, rejected for the same reason noted in claim 3.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8 and 31-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6,538,957, issued to Magoshi.

As per claim 8, Magoshi discloses a circuit having a phase comparator for determine a phase offset of clock signals as discussed in claim 7 herein above. In column 6, lines 1-2, he further explicitly suggests that any known phase detector can be used.

Magoshi does not explicitly disclose the phase comparator is a digital phase offset as called for in the claim.

The examiner takes Official Notice the fact that implementing a phase comparator to produce digital phase offset or analog phase offset is old and well-known in the art.

It would have been obvious to one skilled in the art at the time of the invention was made to implement the Magoshi's phase detector 112 to produce digital phase offset output. The

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motivation would be to provide compatible interfacing with the buffer circuit when the buffer circuit is a digital buffer.

As per claim 31, rejected for the same reason and motivation discussed in claim 8.

As per claim 32, Magoshi discloses a circuit having a phase comparator for determine a phase offset of clock signals as discussed in claim 7 herein above. In column 6, lines 1-2, he further explicitly suggests that any known phase detector can be used.

Magoshi does not explicitly disclose the phase comparator is an analog phase offset as called for in the claim.

The examiner takes Official Notice the fact that implementing a phase comparator to produce digital phase offset or analog phase offset is old and well-known in the art.

It would have been obvious to one skilled in the art at the time of the invention was made to implement the Magoshi's phase detector 112 to produce analog phase offset output. The motivation would be to provide compatible interfacing with the buffer circuit when the buffer circuit is an analog buffer.

Allowable Subject Matter

6. Claims 13-21 and 36 are allowed after the informality objection to claim 36 is corrected.

Claims 13-21 are allowed because the prior art of record fails disclose or suggest the inclusion of a reference feedback element which receives a reference clock signal as recited in claim 13.

Claim 36 is allowable for the same reason noted in claim 13.

7. Claims 10-12 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claim 10 is allowable because the prior art of record fails to disclose or suggest the inclusion of an integrator, first and second current sources in the phase feedback element.

Claims 11-12 are allowable for the same reason noted in claim 10.

8. Claims 23-26 and 35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 23-26 are allowable because the prior art of record fails to disclose or suggest the inclusion of first and second plurality of bit registers arranged as recited in claim 23.

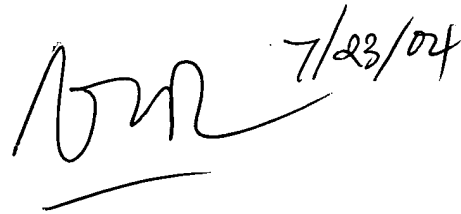
Claim 35 is allowable for the same reason noted in claim 10.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Nguyen whose telephone number is **571-272-1748**. The examiner can normally be reached on Monday, Tuesday, Thursday, Friday 7:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to be 'Minh', followed by the date '7/23/04' written in a similar cursive style.

Minh Nguyen
Primary Examiner
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